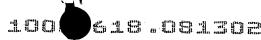
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PATENT CLAIMS

A borosilicate glass of high chemicals resistance, characterized by a composition (in % by weight, based on oxide) of:

	SiO ₂	70 – 77
	B ₂ O ₃	6 - < 11.5
	Al ₂ O ₃	4 - 8.5
10	Li ₂ O	0 - 2
	Na ₂ O	4 - 9.5
	K ₂ O	0 - 5
	with $\text{Li}_2\text{O} + \text{Na}_2\text{O} + \text{K}_2\text{O}$	5 - 11
	MgO	V - 2
15	CaO	0 - 2.5
	with MgO + CaO	20 √ 3
	ZrO ₂	0 - > 0.5
	CeO ₂	0 - 1

- and, if appropriate, standard\ refining agents in 20 standard amounts.
- The borosilicate glass as claimed in claim 1, characterized by a composition (in %\by weight, based 25 on oxide) of:

	SiO ₂	70.5 - 76.5
	B ₂ O ₃	6.5 - < 11.5
	Al ₂ O ₃	4 - 8
30	Li ₂ O	0 - 1.5
	Na ₂ O	4.5 - 9
	K ₂ O	0 - 5
	with $Li_2O + Na_2O + K_2O$	5.5 - 10.5
35	MgO	0 - 1
	CaO	0 - 2
	with MgO + CaO	0 - 3
	ZrO ₂	0 - < 0.5

CeO₂

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and, if appropriate, standard refining agents in standard amounts.

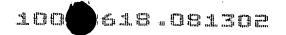
3. The borosilicate glass as claimed in claim 1 or 2, characterized in that it additionally contains (in % by weight, based on oxide):

SrO 0 - 1.5BaO 0 - 1.510 with SrO + BaO 0 - 2ZnO 0 - 1.5

4. The borosilicate glass as claimed in at least one of claims 1 to 3, characterized in that it additionally contains (in % by weight, based on oxide):

 $Fe_2O_3 + Cr_2O_3 + CoO$ 0 - 1 TiO₂ 0 - 3.

- 20 5. The borosilicate glass as claimed in at least one of claims 1 to 4 characterized in that, apart from inevitable impurities, it is free of As₂O₃ and Sb₂O₃.
 - 6. The borosilicate glass as claimed in at least one of claims 1 to 5, having a coefficient of thermal expansion $\alpha_{20/300}$ of between > 5 and 6.0 \times 10⁻⁶/K, in particular between > 5.3 and 5.9 \times 10⁻⁶/K, and a working point V_A of at most 1180°C.
 - 7. The use of the borosilicate glass as claimed in at least one of claims 1 to 6, as sealing glass for Fe-Co-Ni alloys.
 - 8. The use of the borosilicate glass as claimed in at
 35 least one of claims 1 to 6 as instrument glass for
 laboratory applications and for the construction of
 chemical installations.



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9. The use of the borosilicate glass as claimed in at least one of claims 1 to 6 as primary packaging material for pharmaceuticals, for example as ampoule glass.

ABSTRACT

The invention relates to a borosilicate glass of high chemicals resistance, having a composition (in % by weight, based on oxide) of SiO_2 70-77; B_2O_3 6 - < 11.5; Al_2O_3 4-8.5; Li_2O 0-2; Na_2O 4-9.5; K_2O 0-5; with Li_2O + Na_2O + K_2O 5-11; MgO 0-2; CaO 0-2; with MgO + CaO 0-3; ZrO_2 0-<0.5; CeO₂ 0-1.

The glass is particularly suitable for use as primary packaging material for pharmaceuticals.